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ABSTRACT

The Illustrative Examples are a companion resource to Alberta Education's 1998 "Information and Communication Technology, Interim Program of Studies." Purposes of the examples are to: clarify the intent of the general and specific outcomes of the program of studies; suggest ways to integrate the general and specific outcomes with programs of study in the core subject areas for grades 1-6; and suggest tasks and activities that may help students achieve the outcomes within core subject areas. Each illustrative example includes a background or context, the task or activity, a scoring guide or rubric, specific outcomes, and related curriculum outcomes. Preceding the examples is an outline of information and technology general outcomes in the following categories: foundational operations, knowledge, and concepts; processes for productivity; and communicating, inquiring, decision making, and problem solving. A checklist for selected specific outcomes related to file management and basic procedures, text-data entry procedures, and computer workstation components for Divisions I (grades 1-3) and II (grades 4-6) is appended. (AEF)

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ILLUSTRATIVE EXAMPLES

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After January 25, 1999 the area code 403 becomes area code 780.

The primary intended audience for this interim program of studies is:

Administrators	✓
Counsellors	
General Audience	✓
Parents	✓
Students	
Teachers	✓

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INTRODUCTION

PURPOSE

The Illustrative Examples are a companion resource to the *Information and Communication Technology, Interim Program of Studies,* 1998. The purpose of these examples is to:

- clarify the intent of the general and specific outcomes of the program of studies
- suggest ways to integrate the general and specific outcomes with programs of study in the core areas across all grade levels
- suggest tasks and activities that may help students achieve the outcomes within core subject areas.

The illustrative examples provide sample tasks students can perform to demonstrate what they know and can do in relation to the technology and core subject outcomes. These illustrative examples also provide ways in which to view the technology outcomes, as many of them may be broadly interpreted. For example, students are expected to communicate through multimedia. There are a variety of ways to accomplish this, from incorporating visuals, such as posters or a slide show with an oral presentation, to creating an electronic multimedia presentation with a software program. The concept of communicating through multimedia is the critical outcome; how students demonstrate their understanding and skill with this can vary.

The illustrative examples demonstrate how the technology outcomes can be integrated within the context of the core curricular areas. Each example is cross-referenced to one or more curricular outcomes. There are also examples of cross-curricular integration (two or more curricula along with the technology outcomes). A list of the **current programs of study** that the curriculum outcomes were drawn from can be found in the references section of this document. As these programs of study change, the illustrated examples will need to be reviewed for their currency.

LOOKING AT TECHNOLOGY DIFFERENTLY

The goal of the program of studies is to enable our students to become:

- capable information and communication technology users
- information seekers, analyzers and evaluators
- problem solvers and decision makers
- communicators and collaborators
- informed, responsible and contributing citizens.

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Technology has been defined as the processes, tools and techniques that alter human activity. While often much attention is paid to such tools as computers, productivity software and peripheral devices, when we speak of technology, there is a need to focus on the processes that provide us with the conceptual tools with which to live our lives and to do our work more efficiently and effectively. One approach is to distinguish between hard and soft technologies. **Hard technologies** refer to such tools as computer hardware and software, calculators, fax machines, television and radio, VCRs and other electronic devices. **Soft technologies** refer to such processes as information management, needs assessment, task analysis, data analysis, mind mapping, instructional design, time management and collaboration with others.

As well as knowing how to use and apply the hard technologies—the tools—students also need to understand and apply the soft technologies—the processes. Many of the illustrative examples require students to demonstrate their ability to apply tools and processes within a specific context or problem. Transferring these skills to new contexts or problems is also a very critical outcome to achieve. The illustrative examples provide a starting place. Teachers will want to create other tasks and activities that present different problems and contexts.

FORMAT FOR ILLUSTRATIVE EXAMPLES

Each illustrative example has three parts to it:

- a background, or context
- the task or activity
- a scoring guide, or rubric.

Background The background provides important information to help students understand the nature of the problem to be solved or the conditions guiding the task. Sometimes the background or context is written for the student and sometimes it is written for the teacher. When the background is written for the teacher it provides an overview of the general purpose for the task and/or the subject setting.

Task The task or activity may be as simple as answering a question or following a single step process. It may be complex and involve a series of steps or interrelated processes. It may be completed in a single lesson, or it may require many class periods to complete. The task may incorporate several technology and subject outcomes, and some tasks cross over several subjects. Most of the tasks require students to have learned specific skills already. The task then becomes a demonstration of what the students can do on their own.

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Students should be provided with the opportunity and time to learn the required skills prior to the introduction of the task, or the teacher should use the task to help students learn what is expected. Many of the tasks are group activities that require students to work and collaborate with others.

> **Note:** Task activities are suggestions only. Teachers are encouraged to modify the tasks to meet the needs and circumstances of their students. The availability of resources, such as software, computers and Internet connections, will determine which tasks are most appropriate. Student interest and readiness should also be taken into consideration.

Scoring guide The scoring guide or rubric further clarifies what is expected of students by describing task assessment criteria. As tasks are designed to emphasize the technology learner outcomes, scoring guides generally provide only those criteria that match the specific outcomes listed. This type of scoring guide is called an **analytic rubric** and is most useful for instructional purposes. Teachers may want to develop scoring guides that also incorporate criteria matching the subject learner outcomes. This type of rubric is called **holistic**.

CHECKLISTS

In Division 1 and Division 2 there are many outcomes that may best be assessed by teacher observation of a student performance. Checklists have been created for this purpose and can be found in Appendix 1.

ONLINE DATABASE

The illustrative examples presented in this document also may be found in a searchable database on the Alberta Education web site at <http://ednet.edc.gov.ab.ca/technology>. Many of the illustrative examples include links to other web pages. As well, the 2Learn Alliance site provides a gateway to additional information and ideas. It can be found at <http://www.2Learn.ca>.

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INFORMATION AND COMMUNICATION TECHNOLOGY

GENERAL OUTCOMES

FOUNDATIONAL OPERATIONS, KNOWLEDGE AND CONCEPTS

F1 Students will demonstrate an understanding of the nature of technology.

F2 Students will understand the role of technology as it applies to self, work and society.

F3 Students will demonstrate a moral and ethical approach to the use of technology.

F4 Students will become discerning consumers of mass media and electronic information.

F5 Students will practice the concepts of ergonomics and safety when using technology.

F6 Students will demonstrate a basic understanding of the operating skills required in a variety of technologies.

PROCESSES FOR PRODUCTIVITY

P1 Students will compose, revise and edit text.

P2 Students will organize and manipulate data.

P3 Students will communicate through multimedia.

P4 Students will integrate various applications.

P5 Students will navigate and create hyperlinked resources.

P6 Students will use communication technology to interact with others.

COMMUNICATING, INQUIRING, DECISION MAKING AND PROBLEM SOLVING

C1 Students will access, use and communicate information from a variety of technologies.

C2 Students will seek alternative viewpoints, using information technologies.

C3 Students will critically assess information accessed through the use of a variety of technologies.

C4 Students will use organizational processes and tools to manage inquiry.

C5 Students will use technology to aid collaboration during inquiry.

C6 Students will use technology to investigate and/or solve problems.

C7 Students will use electronic research techniques to construct personal knowledge and meaning.

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 1

General Outcomes: P1, P3

SPECIFIC OUTCOMES

The student will be able to:

P1	1.1	create original text, using word processing software, to communicate and demonstrate understanding of forms and techniques
P3	1.2	create visual images by using such tools as paint and draw programs for particular audiences and purposes

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 1
GO4.1, Bullets 1 and 3

- contribute ideas from personal experiences for oral, written and visual texts
- organize print and pictures to express ideas and tell stories

GO4.4, Bullet 1

- share information and ideas in a brief presentation to a familiar audience; use illustrations and other materials to aid the presentation

STUDENT TASK

Background

The class should have discussed the signs of fall prior to this activity. Students brainstorm words about fall. The teacher helps them choose a format to tell about fall. It could be a story, a poem, a letter to someone who does not know what happens in fall or a list of what happens in fall. When finished, students are to create an illustrated cover page for the written work. The students should be familiar with a draw or paint program to create visual images.

Task

We have just talked about the signs of fall, written words that tell about fall and placed them around the room. You are to write a story, a poem or a letter telling someone what it is like in fall, or write a list about what happens in fall. If you wish, you may write it first on paper and then use the word processor.

Use a draw or paint program to draw a picture to go along with your writing. Print the picture and use it as a cover page for your writing.

SCORING GUIDE

The student:

4 – uses a variety of available tools to create an elegant cover page
– communicates ideas clearly and fluidly, using a word processor to create the text

3 – uses some of the available tools to create a cover page that enhances the story
– communicates ideas in an understandable manner, using a word processor to create the text

2 – uses a few tools to create a cover page
– expresses a few ideas, using a word processor with assistance only

1 – expresses a few ideas but is unable to use the word processor even with assistance
– is unable to make a picture, using a draw or paint program

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 1

General Outcomes: P5, C1

SPECIFIC OUTCOMES

The student will be able to:

P5	1.1	navigate within a document, compact disc or other software program that contains links
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry

RELATED CURRICULUM OUTCOMES

Science, Grade 1
Topic E, SLE 1

- classify some common local plants and animals into groups on the basis of visible characteristics, e.g., adaptations of survival, such as claws, beaks, prickles

STUDENT TASK

Background

In Topic E: Needs of Animals and Plants, students describe and compare living things. In this task, students use picture CD-ROMs to find pictures of different species of animals. Using a questionnaire or chart that the teacher provides, they record information about animal characteristics and compare information. A prepared database could be used in place of a chart.

Task

Use a CD-ROM to find information about animals.

Fill in a chart to record animal characteristics:

- legs (number)
- covering
- habitat
- locomotion.

SCORING GUIDE

The student:

4 – is able to navigate the CD-ROM and retrieve information without assistance
3 – is able to navigate the CD-ROM and retrieve information with little assistance
2 – is able to navigate the CD-ROM and retrieve information with assistance
1 – is unable to navigate the CD-ROM and retrieve information with assistance

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 1

General Outcomes: P3, C6, C7

SPECIFIC OUTCOMES

The student will be able to:

P3	1.2	create visual images by using such tools as paint and draw programs for particular audiences and purposes
C6	1.3	use technology to support and present conclusions
C7	1.1	develop questions that reflect a personal information need
	1.3	draw conclusions from organized information
	1.4	make predictions based on organized information

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 1
Topic A, Communication Skills, Bullet 1 SLE 1
- express ideas orally and pictorially

Topic A, Process Skills, Analyzing/Synthesizing/Evaluating Bullet 2
- draw conclusions about the roles and responsibilities of people at the school

Topic A, Related Facts and Content, Bullet 7;
Topic A, Process Skills, Bullet 3
- describe people in the school and their responsibilities
- gather information by interviewing person(s) within the school, using questions generated by the class

STUDENT TASK

Background

As a group, students brainstorm questions to generate information about each job found in the school. Students make predictions about the similarities and differences of the jobs in the school, and draw conclusions from the information they gather. Students choose which job they would prefer and explain why.

Task

As a class, make a list of all the different jobs people who work in the school have. Brainstorm questions to ask the people about their jobs. Invite someone from each type of job into the classroom. Each group will choose one question to ask of each person. With the help of the teacher, make notes from the information that is given.

Look over all the information that the class has gathered.

- Are there things about the various jobs that are the same?
- What things are different?

Use a draw and paint programs to draw a picture of a person doing the job that you would like, and talk about why you would like that job.

SCORING GUIDE

The student:

4 – is able to generate questions for the class discussion and make predictions about the similarities and differences of jobs
– creates a picture, without assistance, using a draw and paint programs

3 – is able to generate questions for the class discussion and make some predictions about the similarities and differences of jobs
– creates a picture, with little assistance, using a draw and paint programs

2 – is able to generate some questions for the class discussion
– is able to use, with much assistance, a draw a paint programs to create a picture

1 – is unable to contribute to the discussion and make predictions
– is unable to use a draw and paint programs

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 1

General Outcomes: F6, P5, C1, C5

SPECIFIC OUTCOMES

The student will be able to:

F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
P5	1.1	navigate within a document, compact disc or other software program that contains links
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry
C5	1.1	share information collected from electronic sources to add to a group task

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 1
Topic C, Process Skills, Bullet 3

- acquire and interpret information from pictures, books, filmstrips and/or films on traditions held by Canadian families

STUDENT TASK

Background

This task should begin with a teacher-led discussion and brainstorming session on what family traditions are and how they differ. The teacher provides the students with a variety of books, pictures and picture CD-ROMs. Students use these resources to find illustrations of how families have different traditions, such as the way holidays are celebrated. The teacher asks the students to draw two pictures one of their own family traditions, and one of the traditions of another family they found in their research. Students share the ways in which their family is the same and/or different from the one they chose.

Task

Find information about traditions of Canadian families from a CD-ROM encyclopedia, books and pictures. Look for one tradition that is the same as your family's and one that is different. Share the information with the class, by drawing a picture of your family's tradition and that of a different family.

SCORING GUIDE

The student:

4 – navigates a CD-ROM with no assistance and finds the information that is needed; uses a draw and paint programs to create a picture easily

3 – navigates a CD-ROM with minimal assistance and finds the information that is needed; uses a draw and paint programs, with some assistance, to create a picture

2 – navigates a CD-ROM and uses a draw and paint programs only with a great deal of assistance

1 – is able to navigate a CD-ROM and use a draw and paint programs only with direct assistance at all times

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 2

General Outcomes: F1, P5, C1

SPECIFIC OUTCOMES

The student will be able to:

F1	1.2	apply terminology appropriate to the technologies being used at this division level
P5	1.1	navigate within a document, compact disc or other software program that contains links
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 2
GO 3.2, Bullet 2

- access information using a variety of sources [such as simple chapter books, multimedia resources, computers, elders]

STUDENT TASK

Background

Most students who have experience using a computer, particularly using CD-ROM encyclopedias or other information software, learn how to navigate through the use of hyperlinks. Electronic books also provide opportunities to use hyperlinks. This activity provides one way to observe students using hyperlinks.

Task

Read an electronic book to a friend. Show the friend how this book works.

SCORING GUIDE

The student:

4 – navigates easily through the electronic book, by using all relevant links, and is able to use the appropriate terms, such as cursor, mouse, menu and scroll
3 – navigates through the electronic book, by using most links, and is able to use most appropriate terminology
2 – navigates through the electronic book, by using some links, and is able to use some terminology
1 – is unable to navigate through the electronic book or use appropriate terminology without a great deal of assistance

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 2

General Outcomes: F3, F6, P1, P6

SPECIFIC OUTCOMES

The student will be able to:

F3	1.5	use appropriate communication etiquette
F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
P1	1.1	create original text, using word processing software, to communicate and demonstrate understanding of forms and techniques
P6	1.1	compose a message that can be sent through communication technology
	1.2	communicate electronically with people outside the classroom

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 2
GO 4.1, All Bullets

- generate and contribute ideas on particular topics for oral, written, and visual texts
- use a variety of forms [such as simple reports, illustrations, role-plays of characters and situations, string game] for particular audiences and purposes
- order ideas to create a beginning, middle and end in own oral, written and visual texts

STUDENT TASK

Background

Students use a word processor to communicate for a purpose. The example provided is a thank you note that the students write after a field trip to a fire station. Other types of trips, activities or message types, such as a memorandum, poster or invitation, could be substituted. A template that provides a framework could be provided for each student.

Task

You have just completed a really interesting field trip to the local fire station. Use the word processor to make a thank you note that the teacher can send by mail, fax or e-mail to the firefighters. Be polite and make sure the note shows what you learned.

SCORING GUIDE

The student:

4 – uses a computer to produce a polite and clear thank you note

3 – uses a computer to produce a correctly worded thank you note with few spelling errors

2 – uses a computer to produce a thank you note that contains many spelling errors

1 – is unable to use a computer to produce a thank you note

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 2

General Outcomes: F1, F3, F6, P1

SPECIFIC OUTCOMES

The student will be able to:

F1	1.2	apply terminology appropriate to the technologies being used at this division level
F3	1.2	work collaboratively to share limited resources
F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
P1	1.1	create original text, using word processing software, to communicate and demonstrate understanding of forms and techniques
	1.2	edit complete sentences, using such features of a word processor as cut, copy and paste

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 2
GO 3.2, Bullet 2

- access information using a variety of sources [such as simple chapter books, multimedia resources, computers, elders]

STUDENT TASK

Background

Students write a fairy tale rebus story, using clip art or student-created pictures for the images. This would be a good cross-grade opportunity, so that older students could work with younger students to assist them with the technology. Students need to see examples of rebus stories before doing this activity. Clip art is available on commercial CD-ROM collections.

Task

You have been reading fairy tales in your class. Your task is to write a rebus fairy tale story. You need to choose your favourite fairy tale and retell the story in your own words.

Write your story.

Circle or underline the words in the story that you want to represent with a picture. These should be words that occur frequently in the story and can be easily represented with a picture.

Work with your older partner to type your story on the computer, and copy and paste the clip art pictures into the story.

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SCORING GUIDE

The student:

4 – creates original text independently, and uses and applies appropriate terminology for such functions as cut, copy and paste
– works collaboratively with partners, sharing resources and performing basic computer operations with ease

3 – creates original text, and uses and applies appropriate terminology for such functions as cut, copy and paste
– works collaboratively with partners, sharing resources and performing basic computer operations

2 – has difficulty creating original text, and using and applying appropriate terminology for such functions as cut, copy and paste
– has difficulty working collaboratively with partners, sharing resources and performing basic computer operations

1 – is unable to create original text, and to use and apply appropriate terminology for such functions as cut, copy and paste
– is unable to work collaboratively with partners, share resources and perform basic computer operations

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 2

SPECIFIC OUTCOMES

The student will be able to:

F1 1.3 demonstrate an understanding that the user manages and controls the outcomes of technology

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 2
GO 1.1, Bullet 1; GO 1.2, Bullets 1, 2 and 3; GO 2.1, Bullet 1; GO 3.1, Bullet 3; GO 3.2, Bullet 1; GO 4.4, Bullet 1; GO 5.1, Bullet 2; GO 5.2, Bullet 2

- make and talk about personal observations
- connect new information, ideas, and experiences with prior knowledge and experiences
- explain new experiences and understanding
- arrange ideas and information to make sense
- make connections between texts, prior knowledge and personal experiences
- contribute relevant information and questions to assist in group understanding of a topic or task
- participate in group talk to generate information on a topic and to identify sources of additional information
- share information and ideas on a topic with a familiar audience; clarify information by responding to questions
- contribute related ideas and information in whole-class and small-group activities
- talk about similarities among stories from oral, print and other media texts from various communities

General Outcomes: F1

STUDENT TASK

Background

The increasingly prominent role of technology in our society has created a need for Alberta students to be able to understand and work with a variety of technologies. In addition to having this knowledge and these skills, educators also recognize that students need to be able to apply technology in responsible, ethical ways.

The ***Lorax*** by Dr. Seuss, provides one example of how literature can be used as a forum for discussion to support the ethical use of technology.

Task

The ***Lorax*** can be enjoyed as a book or as a video. Listen to or watch this story, and think about these questions:

- What is the "cutting machine"? Is it a good or a bad machine? Why? Who decides if it is used for good or bad work?
- Is the uncle trying to be mean when he cuts down all of the trees, or is he just not thinking? Why do you think so?
- If you could talk to the uncle before he cuts down more trees, what would you say? Why?

SCORING GUIDE

The student:

4 – demonstrates insight into the concept that the user manages and controls the outcomes of technology, and that technology in itself is generally neither "good" nor "bad" but that it is the ethical and responsible use that is at issue
– displays a strong sense of ownership for own ideas as they relate to the ethical and responsible use of technology

3 – demonstrates the beginnings of insight into the concept that the user manages and controls the outcomes of technology, and that technology in itself is generally neither "good" nor "bad", but that it is the ethical and responsible use that is at issue
– displays a sense of ownership for own ideas as they relate to the ethical and responsible use of technology

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2 – demonstrates limited insight into the concept that the user manages and controls the outcomes of technology, and that technology in itself is generally neither "good" nor "bad", but that it is the ethical and responsible use that is at issue
– displays the beginnings of a sense of ownership for own ideas as they relate to the ethical and responsible use of technology

1 – has difficulty in understanding that the user manages and controls the outcomes of technology, and that technology in itself is generally neither "good" nor "bad", but that it is the ethical and responsible use that is at issue
– displays little or no ownership for own ideas as they relate to the ethical and responsible use of technology

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 2

General Outcomes: F1, C4

SPECIFIC OUTCOMES

The student will be able to:

F1	1.2	apply terminology appropriate to the technologies being used at this division level
C4	1.2	formulate new questions as research progresses

RELATED CURRICULUM OUTCOMES

Science, Grade 2
Skills, Bullet 4; Topic A, SLE 1

- identify new questions that arise from the investigation
- recognize and describe characteristics of liquids: recognize and describe liquid flow, describe the shape of drops, describe the surface of calm water

STUDENT TASK

Background

In Topic A: Exploring Liquids, students recognize and describe characteristics of liquids. In this task, the teacher needs to prepare a database that compares water with one or more other liquids. The characteristics in the database are colour, ease of flow, tendency of drops to form a ball shape, interactions with other liquids and interactions with solid materials. Materials needed include water and non-water-based liquids, such as oil, alcohol, molasses, syrup or honey.

Students use this database to make their comparisons.

Task

How do liquids flow? Do all liquid drops look the same? What does the surface of calm water look like? To answer these questions conduct a series of tests using materials such as eyedroppers, beakers and various liquids.

What other questions related to the characteristics of liquids would you like answers to? Design an experiment that would help you find the answers.

After conducting your experiment, comparing water with other liquids, your teacher enters all of the results into a computer database so everyone can examine the results from the class. A worksheet that be provided. Use this worksheet to fill out your observations.

SCORING GUIDE

The student:

4 – reads, correctly, all of the information from the database
– formulates several new and relevant questions

3 – reads, correctly, a majority of the data from the database
– formulates a few new questions

2 – reads, correctly, most of the data from the database
– formulates a new question

1 – does not demonstrate accurate reading from the database
– does not formulate any new questions

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 2

General Outcomes: F3, P6

SPECIFIC OUTCOMES

The student will be able to:

F3	1.5	use appropriate communication etiquette
P6	1.1	compose a message that can be sent through communication technology
	1.2	communicate electronically with people outside the classroom

RELATED CURRICULUM OUTCOMES

Science, Grade 2
Topic E, SLE 8

- identify ways in which animals are considered helpful or harmful to humans and to the environment

STUDENT TASK

Background

In Topic E: Small Crawling and Flying Animals, students identify ways in which these animals are considered helpful or harmful to humans. In this task, students brainstorm and then compose a letter to be sent electronically to a local zoo or museum.

Task

Marlene invited her brother, John, to school last week. John has a large composter that uses worms to decompose waste. What other small animals are helpful to us? Are there any small animals or insects that are harmful?

In order to find out about different helpful and harmful animals, we can write a letter to the zoo or museum to request information.

As a class, brainstorm a list of questions you could use in a letter to find the needed information. Use the list on the board to write a short letter asking the zoo or museum for the information you would like. Use e-mail to send your letter.

SCORING GUIDE

The student:

4 – communicates ideas clearly, using a polite tone
– sends a letter electronically without assistance

3 – communicates ideas fairly clearly, using a polite tone
– sends a letter electronically with assistance

2 – communicates ideas unclearly
– produces a letter that is not clear enough to send

1 – produces a letter that is not complete
– is unable to produce a letter that can be sent

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ILLUSTRATIVE EXAMPLES

CROSS-CURRICULAR, GRADE 2

General Outcomes: F3, F6, P5, C1, C3, C4, C5

SPECIFIC OUTCOMES

The student will be able to:

F3	1.1	demonstrate courtesy and follow classroom procedures when making appropriate use of computer technologies
F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
	1.3	operate basic audio and video equipment, including inserting, playing, recording and ejecting media
P5	1.1	navigate within a document, compact disc or other software program that contains links
	1.2	access hyperlinked sites on an intranet or the Internet
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry
C3	1.1	compare and contrast information from similar types of electronic sources
C4	1.1	follow a plan to complete an inquiry
C5	1.1	share information collected from electronic sources to add to a group task

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 2
GO 3.1, Bullet 4; GO 3.3, Bullet 2

- recall and follow directions for accessing and gathering information
- record key facts and ideas in own words; identify titles and writers of sources

STUDENT TASK

Background

Working in small groups, students make books about small crawling and flying animals. Students use electronic and print resources to research their topic. Teachers may wish to provide them with a chart to organize their information.

This activity is a cross-curricular activity that covers science and English Language Arts outcomes.

Task

You will be making a book about small crawling and flying animals. Your book is to include pictures and information about your topic.

Gather information and arrange it according to categories, such as appearance, food, habitat, habits and predators.

Use the information and pictures you have gathered from electronic sources, e.g., a CD-ROM and the Internet, as well as from print materials from the library.

Divide up the work among your group, assigning one animal to each member of the group.

Make sure that all your group members are able to contribute to the project.

Decide how you will use the computer to gather information, making sure that each member has an opportunity to work on the computer.

Put your information together into a book that you could share with other students.

SCORING GUIDE

The student:

4 – works cooperatively with the group, sharing resources and using the computer appropriately
– navigates links and retrieves information about the topic

3 – works cooperatively with the group, sharing resources and using the computer appropriately
– navigates links and retrieves information about the topic with some assistance

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Science, Grade 2
Topic E, SLE No. 1, 2, 3

- recognize that there are many different kinds of small crawling and flying animals, and identify a range of examples that are found locally
- compare and contrast small animals that are found in the local environment. These animals should include at least three invertebrates—that is, animals such as insects, spiders, centipedes, slugs, worms
- recognize that small animals, like humans, have homes where they meet their basic needs of air, food, water, shelter and space; and describe any special characteristics that help the animal survive in its home

2 – has some difficulty working cooperatively with the group, sharing resources and using the computer appropriately
– navigates links and retrieves information about the topic with a great deal of assistance

1 – is unable to work cooperatively in the group and to share resources
– is unable to navigate links and retrieve information about the topic

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ILLUSTRATIVE EXAMPLES

TECHNOLOGY, GRADE 2

General Outcomes: F3, C3

SPECIFIC OUTCOMES

The student will be able to:

F3	1.4	recognize and acknowledge the ownership of electronic material
C3	1.1	compare and contrast information from similar types of electronic sources

RELATED CURRICULUM OUTCOMES

Technology, Grade 2
Any Subject Area

STUDENT TASK

Background

The Internet provides students with access to a virtually unlimited source of information. In addition to teaching children how to use this technology, Alberta educators also face the challenge of assisting students in developing an ethic grounded on the responsible use of the Internet.

Note: This illustrative example may be linked to a variety of subject areas or may be taught as an introductory activity before the students begin to use the Internet.

Task

There is a very old nursery rhyme that tells us, "Finders keepers, losers weepers". Do you think that this saying should apply to what we "find" on the Internet?

With the help of your teacher, locate a web site that relates to a topic or theme that you are studying. Check out the web site.

If you were to write a report on this topic, would it be all right for you to simply copy what you found on the web site? Why or why not? Would it be similar to or different from copying a library book? Why or why not?

In small groups or as a whole class, discuss the issues. Based on the ideas, develop a chart that shows what the class thinks.

SCORING GUIDE

The student:

4 – recognizes the need for and acknowledges the ownership of electronic material; is able to make the connection between responsible and ethical use of computers and ownership of electronic material; approaches the issue of acknowledging sources of information with maturity beyond grade level expectations

3 – recognizes the need for and acknowledges the ownership of electronic material; is beginning to make the connection between responsible and ethical use of computers and ownership of electronic material; approaches the issue of acknowledging sources of information with maturity

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2	– presents a basic recognition of the need for acknowledging the ownership of electronic material; requires assistance to make the connection between responsible and ethical use of computers and ownership of electronic material; approaches the issue of acknowledging sources of information with an adequate level of maturity
1	– presents a narrow recognition of the need for acknowledging the ownership of electronic material; does not yet see the connection between responsible and ethical use of computers and ownership of electronic material; approaches the issue of acknowledging sources of information with a limited level of maturity

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 3

General Outcomes: P1

SPECIFIC OUTCOMES

The student will be able to:

P1 1.2 edit complete sentences, using such features of a word processor as cut, copy and paste

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 3
GO 4.2, Bullet 2, GO 4.3, Bullet 2

- revise to accommodate new ideas and information
- know and apply conventional spelling patterns using a variety of strategies and resources [such as phonics, structural analysis, junior dictionaries, electronic spell-check functions, visual memory] when editing and proofreading

STUDENT TASK

Background

Students choose one part of a piece of writing previously completed for which they would like some feedback. They select, copy and paste to make multiple copies of that part on one page. The student or teacher prints out the page, so it can be shared with group members.

Task

Sometimes we write something and then, after we reread it, think that what we have written may not be as clear or as well written as we want it to be. Share, with your peers, a paragraph that you have written. Choose a paragraph that may not be clear or that shows you are having difficulty saying what you want to say. Copy and paste it five times on the bottom of your composition page. Your teacher will print your page. You can then use your scissors to cut and hand out your paragraph to your group members. Read it together, and discuss ways that it can be improved. Take turns sharing your work and giving each other feedback. Edit your work from the feedback you receive.

SCORING GUIDE

The student:

4 – is able to copy, paste and accurately edit a selected paragraph
3 – is able to copy, paste and edit a selected paragraph
2 – can copy and paste a selected paragraph
1 – is unable to copy and paste the paragraph

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 3

General Outcomes: F3, P1, P3

SPECIFIC OUTCOMES

The student will be able to:

F3	1.5	use appropriate communication etiquette
P1	1.1	create original text, using word processing software, to communicate and demonstrate understanding of forms and techniques
P3	1.1	access images, such as clip art, to support communication

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 3
GO 4.4, Bullet 1

- present information and ideas on a topic to engage a familiar audience using a pre-established plan; use print and non print aids to enhance the presentation

STUDENT TASK

Background

After a guest speaker, students compose thank you notes and add a picture from clip art or digital camera for enhancement. Students could also work in a draw and paint programs to draw a picture and write their thank you note.

Task

Compose a thank you note to a guest speaker who has just been in your classroom. Add a picture that you have drawn or clip art that is relevant to the topic of the speaker, to make the note more interesting.

SCORING GUIDE

The student:

4 – accesses a picture from clip art or from a draw/paint program to enhance the visual quality of the note
– composes a thoughtful thank you note, using a word processor

3 – effectively adds a picture or clip art into the note
– composes a thoughtful thank you note, using a word processor

2 – adds a picture or clip art into the note
– composes a thank you note, using a word processor

1 – adds a picture or clip art into the note, with assistance
– composes a thank you note but needs assistance to use a word processor or draw/paint program

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 3

General Outcomes: P1, P6

SPECIFIC OUTCOMES

The student will be able to:

P1	1.1	create original text, using word processing software, to communicate and demonstrate understanding of forms and techniques
P6	1.1	compose a message that can be sent through communication technology
	1.2	communicate electronically with people outside the classroom

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 3
GO 5.2, Bullet 1; GO 3.3, Bullet 1

- records ideas and experiences and share them with others
- organize and explain information and ideas using a variety of strategies [such as clustering, categorizing, sequencing]

STUDENT TASK

Background

In language arts, students need to be able to record ideas and experiences and share them with others. When a student sends a message, the teacher observes proficiency in communicating electronically. There are many ways in which electronic communications can be accomplished:

- set up pen pals via e-mail with another class in your school system
- compose letters/e-mail to send to newspaper journalists who publish their e-mail addresses
- compose letters/e-mail to respond to web sites that request comments. You should, of course, check out the site first to see that it is appropriate
- find an author. Is there an author in your community who would help you with this task? who publishes his/her e-mail and has indicated that he/she would welcome letters?

The following activity is but one suggestion.

Task

You have some questions to ask the author of a book you have just finished reading. Compose a letter to the author with questions that you want to ask. Send the letter electronically. When the author responds, reply with a thank you note.

SCORING GUIDE

The student:

4 – composes the letter and stylizes for clear communication
  – sends the letter easily
3 – composes the letter to send easily
  – sends the letter without difficulty
2 – composes the letter to send
  – sends the letter, with some difficulty
1 – is unable to compose the letter to send
  – cannot send the letter

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 3

General Outcomes: P3

SPECIFIC OUTCOMES

The student will be able to:

P3 1.3 access sound clips or recorded voice to support communication

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 3
GO 4.4, Bullet 1

- present information and ideas on a topic to engage a familiar audience using a pre-established plan; use print and non print aids to enhance the presentation

STUDENT TASK

Background

Students require access to tape recorders and blank tapes. They need to choose some music to accompany a passage that they read.

Task

You will be reading a passage from a favourite book or a poem to the class. Choose some music from a CD or tape that fits the mood of the passage you are reading. Record it onto a tape. Use different music passages when you want to change the mood according to what you are reading. Practice reading the passage with the music as background. Be ready to share this with the class.

SCORING GUIDE

The student:

4 – records the music that enhances the meaning of the passage; may choose more than one piece of music
3 – records the music that supports the meaning of the passage
2 – records the music
1 – is unable to record the music

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 3

General Outcomes: P4

SPECIFIC OUTCOMES

The student will be able to:

P4	1.2	balance text and graphics for visual effect

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 3
GO 4.2, Bullet 5

- prepare neat and organized compositions, reports and charts that engage the audience

STUDENT TASK

Background

This activity can be used for any type of visit or advertising, such as author visits, fund-raisers, fun lunches or special presentations.

Task

An author is visiting your school and your class has been asked to make some school posters to advertise her/his presentation. Create a poster on the computer. Use the editing features to change the font, style and size of text and graphics to create an attractive poster.

SCORING GUIDE

The student:

4 – balances the use of text and graphics to create a pleasing visual effect

3 – is proficient in using text and graphics to create a pleasing visual effect

2 – uses text and graphics to create a visual effect

1 – is unable to use text and graphics to create a visual effect

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ILLUSTRATIVE EXAMPLES

MATHEMATICS, GRADE 3

General Outcomes: C4, C6

SPECIFIC OUTCOMES

The student will be able to:

C4	1.3	organize information from more than one source
C6	1.2	use technology to organize and display data in a problem-solving context

RELATED CURRICULUM OUTCOMES

Mathematics, Grade 3
Data Analysis, SP 3.1 to 3.4

- collect data, using measuring devices and printed/technology resources
- display data, using rank ordering
- display the same data more than one way
- make predictions and inferences when solving similar problems

STUDENT TASK

Background

Teachers need to be familiar with a spreadsheet program in order to help students with this activity. Students complete a survey about favourite television shows with their class. They use a spreadsheet to create a graph for their data.

Task

Part 1: What television shows do you suppose would be the favourites in your class?

List them and make a prediction of what you think your classmates would say if you surveyed them for their list of five favourite television shows.

- Carry out your survey.
- With the help of the teacher, put the data you collect in a spreadsheet on the computer.
- Create graphs with the spreadsheet to illustrate the data.
- Analyze the data with the graphs.

Part 2: Find the top ten television shows for this season. This information can be found in a newspaper, magazine or on the Internet. Compare the data you found from your research with the data you collected from the survey. Explain why there might be differences in this information. Share your information with your class.

SCORING GUIDE

The student:

4 – provides information from more than one source, displays data in a most effective way and has supportive statements that make conclusions about findings
  – uses more than one type of graph that is clearly labelled

3 – provides information from more than one source, displays data clearly and supports conclusions fairly well
  – creates a graph that is clearly labelled

2 – provides information from one source and gives a brief description of the data presented
  – creates a graph that is not clearly labelled

1 – creates a graph that is very unclear or incomplete

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ILLUSTRATIVE EXAMPLES

MATHEMATICS, GRADE 3

General Outcomes: F6, C1

SPECIFIC OUTCOMES

The student will be able to:

F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry
	1.2	process information from more than one source to retell what has been discovered

RELATED CURRICULUM OUTCOMES

Mathematics, Grade 3
Data Analysis, SP 3.1 to 3.3

- collect data, using measuring devices and printed/technology resources
- display data, using rank ordering

STUDENT TASK

Background

Students should have experience with CD-ROMs and knowledge of the research process before starting this task. Some activities that make measurements of size, e.g., length, weight real to the students are needed. Use examples from their immediate environment. For example, a blue whale can grow to be as long as 28 metres. Explain to students that 28 metres is about the length of three houses side to side to side. Students could use a chart to record the information that they have gathered.

Task

Your task is to get an idea of the size of various whales. Choose six different types of whales, and estimate how long they would be and/or how much they would weigh. Using a CD-ROM and an electronic encyclopedia, collect information on the whales of your choice. Record the data in an appropriate way, and be prepared to share the data with your classmates or another class.

SCORING GUIDE

The student:

4 – researches efficiently from an electronic source
– records, accurately, the sizes of six different whales

3 – researches from an electronic source, with little assistance
– records the sizes of six different whales

2 – researches from an electronic source, only with assistance
– records the sizes of some of the different whales

1 – is unable to access electronic information without constant assistance
– records information that is incomplete or inaccurate

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 3

General Outcomes: F6, P3, P4

SPECIFIC OUTCOMES

The student will be able to:

F6	1.1	perform basic computer operations (which may vary by environment), including powering up, inserting disks, moving the cursor, clicking on an icon, using pull-down menus, executing programs, saving files, retrieving files, printing, ejecting disks and powering down
P3	1.2	create visual images by using such tools as paint and draw programs for particular audiences and purposes
P4	1.1	integrate text and graphics to form a meaningful message
	1.2	balance text and graphics for visual effect

RELATED CURRICULUM OUTCOMES

Science, Grade 3
Topic E, SLE 8

- identify examples of environmental conditions that may threaten animal survival, and identify examples of extinct animals

STUDENT TASK

Background

In Topic E: Animal Life Cycles, students learn that an animal's survival can be threatened by environmental conditions. They also learn that environmental conditions were the cause of the extinction of several animals. In this task, students use a draw and paint programs to demonstrate, visually, an understanding of the conditions that threaten animal survival.

Task

In the unit on Animal Life Cycles, you learned that an animal's survival can be threatened by environmental conditions. You have also learned that this has caused the extinction of several animals.

Using your draw and paint programs, create a poster that includes the following:

- a natural habitat
- a man-made or natural threat to this environment
- an animal threatened or extinct.

On your poster, include information about the animal that is threatened or extinct, describe the habitat and tell what is threatening it. Create a catchy slogan for your poster, and include information that informs people about your topic. Print your final product.

SCORING GUIDE

The student:

4 – uses technology tools expertly
– balances visual images and text to create a dynamic effect
– aims the product directly toward the intended audience

3 – uses technology tools with little assistance
– balances visual images and text to create a pleasing effect
– aims the product toward the intended audience

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2	– uses technology tools with a great deal of assistance – does not balance visual images and text – aims the product generally toward the intended audience
1	– needs a great deal of assistance to use technology tools – does not complete the poster – is unclear as to the intended audience

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 3

General Outcomes: P5, C1, C4

SPECIFIC OUTCOMES

The student will be able to:

P5	1.2	access hyperlinked sites on an intranet or the Internet
C1	1.1	access and retrieve appropriate information from electronic sources for a specific inquiry
	1.2	process information from more than one source to retell what has been discovered
C4	1.3	organize information from more than one source

RELATED CURRICULUM OUTCOMES

Science, Grade 3
Topic E, SLE 10
- demonstrate knowledge of the needs of animals studied, and demonstrate skills for their care

STUDENT TASK

Background

In Topic E: Animal Life Cycles, students are demonstrating knowledge of the needs of animals studied and demonstrating skills for their care. In this task, students access some predetermined sites as well as discover other sites on the Internet to assist in achieving the above-mentioned expectation.

Task

Mr. Brown's class is considering buying a leopard gecko for a class pet. Before Mr. Brown allows the purchase to happen, he has to be sure that the pet will be cared for properly. What are some different places that Mr. Brown's class could search, in order to find information on this topic? Think of as many places as you can, and list them.

Using the sites that your teacher has selected, conduct research to solve Mr. Brown's problem. Complete a one-page report, addressing the topic question: "Should Mr. Brown's class purchase a leopard gecko?"

In your report, consider at least the following issues:

- needs of the leopard gecko
- caring for the leopard gecko
- availability of leopard geckos
- your reasons and explanations for why Mr. Brown's class should or should not buy the leopard gecko.

SCORING GUIDE

The student:

4
- accesses several Internet sites
- raises many new questions during the research
- accesses all appropriate information to the topic
- uses three or more pieces of information and is noted to address the issues

3
- accesses at least one Internet site
- raises some new questions during the research
- accesses most of the information appropriate to the topic
- uses two pieces of information and is noted to address each of the issues

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2	– accesses at least one Internet site – posts at least one new question as research progresses – accesses some of the information appropriate to the topic – assesses at least one piece of information and is noted to address each of the issues
1	– accesses no sites – raises no new questions during the research – does not address all the issues – gains little information about the topic, or information is not noted

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 3

General Outcomes: F4, P2, C5, C7

SPECIFIC OUTCOMES

The student will be able to:

F4	1.1	compare similar types of information from two different electronic sources
P2	1.1	read information from a prepared database
C5	1.1	share information collected from electronic sources to add to a group task
C7	1.2	summarize data by picking key words from gathered information and by using jottings, point form or retelling
	1.3	draw conclusions from organized information

RELATED CURRICULUM OUTCOMES

Science, Grade 3
Topic E, SLE 1

- classify a variety of animals, based on observable characteristics; e.g., limbs, teeth, body covering, overall shape, backbone

STUDENT TASK

Background

In Topic E: Animal Life Cycles, students classify a variety of animals based on observable characteristics such as limbs, teeth, body covering, overall shape and backbone. In this task, students use a cooperative learning approach to investigate features of a specific animal. This information is shared by drawing and retelling the characteristic they studied. As a group, students draw conclusions based on the characteristics of the animals.

Task

You know that animals can be grouped in different categories. For example, you could use an animal's teeth as a category and find many animals with similar or different types of teeth. Using an electronic encyclopedia and the Internet sites bookmarked by your teacher, research a specific animal characteristic.

You will be in a group of four to do this, and each group member will have a different characteristic to research. Some possible characteristics that your group may study are teeth, limbs, body covering, overall shape, backbone or any other trait that you could think of to categorize a part of an animal.

Each individual is to gather information about the assigned characteristic and then report to the group.

When you complete your research, add it to the class database. In your group, you are to match the different animal characteristics and create a visual display, e.g., a poster, of your categories. On the visual display, your group will draw at least two conclusions about your categories. Use the database to sort your information. For example, many of the animals that had the characteristic of large canine teeth were carnivores.

Each group presents its display to the class.

SCORING GUIDE

The student:

4 – compares information from sources and draws excellent conclusions
– adds information to a group database
– uses key words on the visual display and in retelling

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3	– compares information from sources and makes some conclusions – adds information to a group database – uses key words on the visual display and in retelling
2	– makes few comparisons or conclusions from the data – adds minimal information to a group database – uses some key words on the visual display and in retelling
1	– is unable to make conclusions from the data – is unable to add information to a group database – is unable to use key words on the visual display and in retelling

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 3

General Outcomes: F6

SPECIFIC OUTCOMES

The student will be able to:

F6 1.3 operate basic audio and video equipment, including inserting, playing, recording and ejecting media

RELATED CURRICULUM OUTCOMES

Science, Grade 3
Topic D, SLE 5 and 6

- demonstrate a variety of ways of producing sounds...
- use sound-producing devices that students have constructed to demonstrate methods for controlling the loudness, pitch and quality of sound produced

STUDENT TASK

Background

In Topic D: Hearing and Sound, students are to demonstrate a variety of ways to produce sound, as well as demonstrate methods for controlling the loudness, pitch and quality of the sound produced. In this task, students create their sound-making device and then record those sounds onto an audiotape/computer, to be played back later.

Task

After creating your sound device, use the classroom tape recorder/computer to tape the different sounds you can make with your device. Try to be as creative as you can. For example, can you play any songs? Can you change the loudness or pitch of the sound?

When you have recorded your "sound", play it back for the class.

SCORING GUIDE

The student:

4 – creates a recording that is of excellent quality, including much variety in pitch, volume and type of sounds
3 – creates a recording that is of good quality, including some variety in pitch, volume and type of sounds
2 – creates a recording that is audible, including little variety in pitch, volume and type of sounds
1 – creates a recording that is inaudible

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 3

General Outcomes: F2

SPECIFIC OUTCOMES

The student will be able to:

F2
- 1.1 identify technologies used in everyday life
- 1.2 describe particular technologies being used for specific purposes

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 3
Topic A, Process Skills, Analyzing/Synthesizing/Evaluating, Bullet 2; Topic A, Process Skills, Bullet 3

- draw conclusions about the roles and responsibilities of people at the school
- collect information through direct observation in the community and by interviewing parents and/or community resource people

STUDENT TASK

Background

As a class, brainstorm technological tools used by businesses in the community. Students draw conclusions on how communities or businesses have changed in order to meet their needs.

Task

You have returned from a field trip to businesses in the community, in which the store or business owners used technology in many ways. Identify the technologies used, and list the specific purpose of each. Discuss the advantages and disadvantages of the use of technologies, in these particular cases and in general.

SCORING GUIDE

The student:

4 – explains, clearly, the advantages and disadvantages of uses of the technology
– identifies technology clearly, using the correct terminology

3 – explains the advantages and disadvantages of uses of the technology
– identifies technology, using the correct terminology

2 – explains, partially, the advantages and disadvantages of uses of the technology
– identifies technology partially, using the correct terminology

1 – is unable to explain the advantages and disadvantages of uses of the technology
– is unable to identify technology, using the correct terminology

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 4

General Outcomes: P1

SPECIFIC OUTCOMES

The student will be able to:

P1 2.1 create and revise original text to communicate and demonstrate understanding of forms and techniques

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 4
GO 4.2, Bullets 2 and 3; GO 4.3, Bullet 3

- revise to create an interesting impression and check for sequence of ideas
- write legibly, using a handwriting style that is consistent in alignment, shape, slant and spacing, and experiment with the use of templates and familiar software when composing and revising
- know and use conventions of basic capitalization and punctuation (including commas in series and quotation marks) when editing and proofreading

STUDENT TASK

Background

Students use a word processor to create and revise a thank you letter for a class visitor. The teacher would need to have students print a draft copy of the letter before the final draft is done or observe the process to see if revisions are taking place.

Task

After listening to a guest speaker, compose a thank you letter on the computer. Reread your letter to ensure you have included something you especially enjoyed about the presentation. Revise and edit your letter to ensure you have included all of the components of a friendly letter.

SCORING GUIDE

The student:

4 – composes a clear letter, using proper conventions
– revises the letter to enhance communication

3 – produces a clearly composed letter
– revises the letter to ensure all components are complete

2 – composes a letter
– revises the letter to ensure most components are complete

1 – is unable to compose a letter on the computer
– is unable to revise the letter

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 4

SPECIFIC OUTCOMES

The student will be able to:

P1 2.1 create and revise original text to communicate and demonstrate understanding of forms and techniques

2.2 edit and format text to clarify and enhance meaning, using such word processing features as the thesaurus, find/change, text alignment, font size and style

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 4
GO 4.2, Bullets 2, 3 and 4

- revise to create an interesting impression and check for sequence of ideas
- write legibly, using a handwriting style that is consistent in alignment, shape, slant and spacing, and experiment with the use of templates and familiar software when composing and revising
- choose descriptive language and sentence patterns to clarify and enhance ideas

General Outcomes: P1

STUDENT TASK

Background

Students use a word processor to clarify and enhance the meaning of a thank you letter, by using such edit features as the thesaurus, find/change, text alignment, font size and style. The teacher would need to have students print a draft copy of the letter before the final draft is done or observe the process to see if revisions are taking place.

Task

You have composed a letter of thanks to a guest speaker. Use the editing features of the word processor to clarify and enhance your letter. Use such edit features as the thesaurus, find/change, text alignment, font size and style to enhance the visual appearance of your work.

SCORING GUIDE

The student:

4 – composes the letter and uses a variety of editing features for clear communication
– revises the letter to significantly enhance communication

3 – composes the letter and uses some editing features for clear communication
– revises the letter to improve communication

2 – composes the letter and uses only one or two editing features for communication
– revises the letter, which includes most components

1 – composes an incomplete letter
– does not complete revisions to the letter

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 4

SPECIFIC OUTCOMES

The student will be able to:

C4 2.1 design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan as necessary

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 4
GO 3.1, Bullet 4

- develop and follow a class plan for accessing and gathering ideas and information

General Outcomes: C4

STUDENT TASK

Background

Students design a plan that illustrates the inquiry process used in completing a research project. The plan is designed before a project is started, and then followed to see if it will work. It should illustrate how the student will deal with dynamic, changing circumstances through a process of reflection and revision.

Task

You have completed research projects in the past for science, social studies or language arts topics. Did you have a plan that you followed, or did you just make up the plan as you went along? This task requires you to design or select a plan to use for your next research project. What steps do you think are logical to follow? How will you deal with problems or unexpected events such as not having access to any equipment that you might need when you need it, or finding information that starts to lead you on a different path? After your plan is complete, follow it to determine if it works. Make revisions to your initial plan as you complete steps of the inquiry process and find that changes need to be made.

SCORING GUIDE

The student:

4 – creates a specific and usable plan
– revises the plan, creatively, on an ongoing basis throughout the project

3 – creates a detailed and usable plan
– revises the plan throughout the project

2 – creates a usable plan
– revises the plan inconsistently

1 – is unable to create a usable plan
– is unable to revise the plan

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 4

General Outcomes: P1

SPECIFIC OUTCOMES

The student will be able to:

P1 2.1 create and revise original text to communicate and demonstrate understanding of forms and techniques

2.2 edit and format text to clarify and enhance meaning, using such word processing features as the thesaurus, find/change, text alignment, font size and style

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 4
GO 4.1, Bullet 2; GO 4.2; Bullet 4

- choose from a variety of favourite forms and experiment with modelled forms [such as narrative and descriptive stories, plays, graphs] for various audiences and purposes
- choose descriptive language and sentence patterns to clarify and enhance ideas

STUDENT TASK

Background

Read the story ***Alexander, Who Used to be Rich Last Sunday***, by Judith Viorst, or a story of a similar nature where a child works with mathematical operations. Discuss the mathematics in the story with the students. Brainstorm some possible topics where the students could weave calculations into a story. Have students compose a similar story on the computer and put it into a book format. Print off a draft copy of the book before the final draft is done or observe the process to see if revisions are taking place.

Task

Your story character has just won $50.00 in a poster drawing contest. On your computer, write a story like ***Alexander, Who Used to be Rich Last Sunday***, by Judith Viorst, where the main character spends money. Include drawings, clip art or sounds to enhance the story. Put the story into book format, and at the back of the book include the computations for how the money was spent.

Use such edit features as the thesaurus, find/change, text alignment, font size and style to make a visually appealing book.

SCORING GUIDE

The student:

4 – uses a word processor, easily and proficiency to compose a book
– uses effective revision strategies to enhance the book

3 – uses a word processor with few difficulties, to composes a book
– uses revision strategies to enhance the book

2 – uses a word processor with some difficulty to compose a book
– uses some revision strategies to enhance the book

1 – experiences great difficulty in using a word processor to compose a book,
– is unable to use revision strategies

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 4

SPECIFIC OUTCOMES

The student will be able to:

C2	2.1	seek responses to inquiries from various authorities through electronic media
C4	2.1	design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan as necessary
	2.3	reflect on and describe the processes involved in completing a project
C5	2.3	extend the scope of a project beyond classroom collaboration by using communication technologies, such as the telephone and e-mail

RELATED CURRICULUM OUTCOMES

Science, Grade 4
Topic A, SLEs 4 and 12

- distinguish between wastes that are readily biodegradable and those that are not
- develop and implement a plan to reduce waste, and monitor what happens over a period of time

General Outcomes: C2, C4, C5

STUDENT TASK

Background

In Topic A: Waste and Our World, students distinguish between wastes that are readily biodegradable and those that are not. Also, students develop and implement a plan to reduce waste, and monitor what happens over a period of time. In this task, the class brainstorms possible sources of information about waste management. Also, students brainstorm a list of questions to be asked. The students work in groups and have various electronic options to find their answers. Students should have access to at least the Internet, a fax machine and a telephone to contact the sources identified. The results of this study are used to design a plan to be implemented in the school.

Task

While Thérèse was on the playground, she noticed a great deal of garbage. She saw banana peels, juice boxes, plastic wrapping and other materials. She was disturbed by this sight and wondered what she could do to help solve this problem.

- Where could Thérèse go to find information about waste management?
- What can Thérèse do at her school to address this problem?

In a group of two or three, create a list of questions that will help your group address the issues involved in reducing waste at the school. Use this list to gather information. Use at least two electronic means, e.g., the Internet, a telephone, a fax machine, to gather your information. If you know of other means, please use them as well. Use this data to come up with a plan to reduce the waste in your school. Each group will present its plan to the class. This presentation will include a reflection that describes the steps taken to complete the project.

SCORING GUIDE

The student:

4 – provides multiple perspectives on the issues in the presentation
– contacts, electronically, several authorities to gather relevant information
– follows a specific search path to gather predominantly relevant information
– uses several electronic means to gather information

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3	– provides at least two perspectives on the issues in the presentation – contacts more than one authority, electronically, to gather relevant information – follows a specific search path to gather mostly relevant information – uses some electronic means to gather information
2	– provides one perspective in the presentation – contacts at least one authority, electronically, to gather relevant information – follows a specific search path to gather some relevant information – uses two electronic means to gather information
1	– does not provide any perspective in the presentation – contacts no authorities, electronically, to gather relevant information – follows no specific search paths, or there was no relevant information – uses no electronic means to gather information

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 4

SPECIFIC OUTCOMES

The student will be able to:

C5 2.2 record group brainstorming, planning and sharing of ideas by using technology

RELATED CURRICULUM OUTCOMES

Science, Grade 4
Topic D, SLE 12

- demonstrate the ability to use a variety of optical devices, describe how they are used, and describe their general structure. Suggested examples include hand lens, telescope, microscope, pinhole camera, light-sensitive paper, camera, kaleidoscope. Students meeting this expectation will be able to provide practical descriptions of the operation of such devices, but are not required to provide theoretical explanations of how the devices work

General Outcomes: C5

STUDENT TASK

Background

In Topic D: Light and Shadows, students demonstrate the ability to use a variety of optical devices, and describe how they are used and their general structure. One of the devices students are asked to describe is a camera—digital, video or otherwise. In this task, students use the camera to record images of the other students conducting tests.

Task

Using the camera provided by your teacher, take several purposeful images of your classmates conducting experiments. Your images must include, at least, an image of a group making predictions and determining how to conduct a test; an image of the actual experimentation; and an image illustrating the conclusion in some way.

Afterward, arrange the images in such a way as to show the results of the experiment. Be prepared to describe how well the camera helped in the completion of your recording.

SCORING GUIDE

The student:

4 – retrieves images independently with accuracy and efficiency
– checks images in a purposeful order, demonstrates attention to purposeful style, and creatively reports the experimentation going on .

3 – retrieves images with accuracy and efficiency
– puts the images in a purposeful order and clearly reports the experimentation going on

2 – retrieves images with a little assistance
– puts the images in order and reports the experimentation going on

1 – retrieves images with a great deal of assistance
– does not place the images in order

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 4

General Outcomes: F1, F6, C5

SPECIFIC OUTCOMES

The student will be able to:

F1	2.1	apply terminology appropriate to the technologies being used at this division level
	2.2	identify and apply techniques and tools for communicating, storing, retrieving and selecting information
	2.3	explain the advantages and limitations of using computers to store, organize, retrieve and select information
	2.4	recognize the potential for human error when using technology
F6	2.2	use and organize files and directories
C5	2.2	record group brainstorming, planning and sharing of ideas by using technology

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 4
Topic B, Participation Skills, Bullet 1; Process Skills, Bullets 2 and 3

- participate cooperatively in group work by helping to make the rules, divide up the tasks, assign jobs and evaluate the group's performance
- gather information by identifying the sequence of ideas or events, identifying time and place relationships (setting), identifying cause-effect relationships, using definite time concepts such as decade and century, calculating the length of time between two given dates
- acquire information by conducting an interview and/or field study to make use of community resources, e.g., museum, senior citizens' home: use planned procedures, record and summarize information from the interview/field study, assess the success of the planning and enactment of the field study and/or interview

STUDENT TASK

Background

Students should have previous knowledge of pioneer life in Alberta from the 1930s to the 1940s, in order to complete this activity. Students should also have knowledge of the research process and be able to use technology to collect, store, retrieve and organize data in a shared folder.

Students brainstorm and write a group report about what life was like for a child living in rural Alberta in the 1930s to the 1940s, and why it was like this. Students need to focus on such things as school, farm life, equipment and homes. The finished project should include a list of ideas and a complete report that are to be stored in an electronic group folder.

Task

At the completion of the project, students discuss the advantages and disadvantages of using technology in a group project, recognizing the potential for human error, and the difficulty involved with multiple users working in a shared folder.

Brainstorm your ideas and write a group report about a child living in rural Alberta in the 1930s to the 1940s. In your report, you will need to explain what life was like and why it was that way. Focus on school, farm life, equipment, homes and other such factors.

Store your list of ideas and completed report in an electronic group folder. Finally, discuss the advantages and disadvantages of using technology for a project such as this one. For example, what difficulties might there be when multiple users share a folder.

SCORING GUIDE

The student:

4 – records, electronically, in a shared folder, an extensive list of brainstormed ideas and the completed report
– has ideas that are well organized in summary paragraphs and that are accurate
– describes, in a detailed manner, several advantages and disadvantages of using technology for a project such as this

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3	– records, electronically, in a shared folder, a list of brainstormed ideas and a group report – organizes ideas in a summary paragraph – describes a few advantages and disadvantages of using technology for a project such as this
2	– records, electronically, with some assistance, a list of brainstormed ideas and a group report in a shared folder – puts ideas in paragraphs – describes one or two advantages and disadvantages of using technology for a project such as this
1	– records, electronically, with a great deal of assistance, a list of brainstormed ideas – does not clearly organize ideas – describes one advantage or one disadvantage of using technology for a project such as this

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 5

General Outcomes: F3

SPECIFIC OUTCOMES

The student will be able to:

F3
- 2.2 work collaboratively to share limited resources
- 2.4 document sources obtained electronically such as web site addresses
- 2.5 respect the privacy and products of others
- 2.7 comply with copyright legislation

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 5
GO 3.3, Bullet 2; GO 5.2, Bullet 2

- record information in own words; cite authors and titles alphabetically and provide publication dates of sources
- draw on oral, print and other media texts to explain personal perspectives on cultural representations

STUDENT TASK

Background

Students cite electronic sources, such as web site addresses, used during research. This activity also allows students to emphasize respect for the intellectual property of others, which is one of the reasons that the work of others is cited when used.

Task

You are currently working on a group research project. You know that it is important to credit the people or places from which you get the information. Write and print out a bibliography for all the sources you have used during this project.

SCORING GUIDE

The student:

4 – cites sources properly and uses standard format correctly
3 – cites sources properly and uses standard format approximately
2 – cites sources but misses some essential dates, and uses a format that is inconsistent
1 – is unable to cite sources properly

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ILLUSTRATIVE EXAMPLES

MATHEMATICS, GRADE 5

General Outcomes: P2

SPECIFIC OUTCOMES

The student will be able to:

P2 2.1 enter and manipulate data by using such tools as a spreadsheet or database for a specific purpose

2.2 display data electronically through graphs and charts

RELATED CURRICULUM OUTCOMES

Mathematics, Grade 5
Data Analysis, SP 5.1, 5.4; Data Analysis, SP 5.6

- identify a question to generate appropriate data and predict result
- evaluate the graphic presentation of the data to ensure clear representation of the results
- display data by hand or by computer in a variety of ways, including frequency diagrams, line plots, broken-line graphs

STUDENT TASK

Background

As a class, establish criteria for the selection of a classroom pet. Collect information on a variety of pets that match the criteria. Survey class members to determine which pet they think is the best choice for the class. Use the data from the individual surveys to choose a pet.

Task

Select six types of possible classroom pets. Survey your classmates to see which pet they think is the best choice. Decide on a way to record your data. Use such tools as a database or spreadsheet on the computer to create a graph and/or chart to display your data. Share your information with your class electronically.

SCORING GUIDE

The student:

4 – chooses a type of graph that enhances understanding of information
– enters data into a spreadsheet or database accurately and efficiently
– creates charts and graphs that are accurate and fully labelled
– communicates information effectively

3 – chooses a type of graph that aids in the understanding of information
– enters data into a spreadsheet or database accurately with some assistance
– creates charts and graphs that are accurate and partially labelled
– communicates information in a partially effective manner

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2	– chooses a type of graph that impedes the understanding of information – enters data into a spreadsheet or database with a few errors, with assistance – creates charts and graphs that are mostly accurate but poorly labelled – communicates only a little information
1	– chooses a type of graph that does not convey any understanding of information – enters data into a spreadsheet or database with many errors and only with a great deal of assistance – creates charts and graphs that are inaccurate and not labelled – lacks communication of information

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ILLUSTRATIVE EXAMPLES

MATHEMATICS, GRADE 5

SPECIFIC OUTCOMES

The student will be able to:

P4	2.2	vary font style and size, and placement of text and graphics, in order to create a certain visual effect
C4	2.2	organize information, using such tools as a database, spreadsheet or electronic webbing

RELATED CURRICULUM OUTCOMES

Mathematics, Grade 5
Data Analysis, SP 5.3; Data Analysis, SP 5.4, 5.5 and 5.6

- use a variety of methods to collect and record data (P$T)
- evaluate the graphic presentation of the data to ensure clear representation of the results
- create classifications and ranges for grouping data
- display data by hand or computer in a variety of ways, including frequency diagrams, line plots, broken-line graphs

General Outcomes: P4, C4

STUDENT TASK

Background

As a class, students need to have brainstormed their favourite television shows.

Task

Choose five favourite television shows. Predict which show will be the class favourite. Develop and administer a survey of the class members to gather data about which show from your list is their favourite. Create an appropriate graph showing the class favourites. Import your graph into a text document. Write four questions about the graph that your classmates could answer. Place your text and graph on the page, varying your font style and size to create an effective visual display. Share it with a classmate to answer the questions created.

SCORING GUIDE

The student:

4 – chooses a type of graph that furthers understanding of the information
– creates a graph that is accurate and fully labelled in a text document
– poses questions that accurately reflect the data recorded
– places text and graph in a visually pleasing way

3 – chooses a type of graph that aids understanding of the information
– creates a graph that is accurate and partially labelled in a text document
– poses questions that reflect the data recorded
– places text and graph in a visually acceptable way

2 – chooses a type of graph that impedes understanding of the information
– creates a graph that is mostly accurate but poorly labelled in a text document
– poses questions that partially reflect the data recorded
– places text and graph in a confusing way

1 – chooses a type of graph that does not convey any understanding of the information
– creates a graph that is inaccurate and not labelled
– poses questions that are missing or have no relationship to the data collected
– places text and graph in a disorganized manner that is not visually pleasing

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 5

General Outcomes: P1, P2, C4

SPECIFIC OUTCOMES

The student will be able to:

P1	2.1	create and revise original text to communicate and demonstrate understanding of forms and techniques
P2	2.1	enter and manipulate data by using such tools as a spreadsheet or database for a specific purpose
C4	2.2	organize information, using such tools as a database, spreadsheet or electronic webbing

RELATED CURRICULUM OUTCOMES

Science, Grade 5
Topic D, SLE 7
- record weather over a period of time

STUDENT TASK

Background

In Topic D: Weather Watch, students record weather over a period of time, as well as appreciate how important it is to be able to forecast weather. In this task, students use a database to enter daily weather information. After a period of time, this information is used to help students learn about the importance of forecasting the weather.

Task

In Alberta, the weather is ever changing and sometimes unpredictable. Using an anemometer, wind vane, barometer, rain gauge and thermometer, record the weather over a period of two weeks. Record the information each day, and enter the data into a class database.

After the two-week period of recording the data, analyze the information to find any relationships that may exist. Prepare a report that contains the information that was collected and your analysis. In a brief and concise manner, describe how using a variety of technologies is important in the forecasting of weather.

SCORING GUIDE

The student:

4 – completes a well-written, concise and clear report with thorough analysis of the data
  – sorts the data in a variety of ways to indicate relationships among existing conditions

3 – completes a clear report with well-supported analysis
  – finds several relationships within the data

2 – completes a report that demonstrates a basic understanding of the task
  – finds a relationship between two sets of the data

1 – prepares a report that is only partially complete
  – finds a relationship within the data, with assistance

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 5

General Outcomes: P3, C6

SPECIFIC OUTCOMES

The student will be able to:

P3	2.2	access available databases for images to support communication
C6	2.3	use graphic organizers, such as mind mapping/webbing, flow charting and outlining, to present connections among ideas and information in a problem-solving environment

RELATED CURRICULUM OUTCOMES

Science, Grade 5
Topic E, SLE 7

- draw diagrams of food chains and food webs, and interpret such diagrams

STUDENT TASK

Background

In Topic E: Wetland Ecosystems, students are required to draw diagrams of food chains and food webs, and interpret these diagrams. In this task, students access pictures from electronic sources, such as CD-ROMs, the Internet or network resources, in order to create accurate diagrams. They include labels and titles for all the diagrams and pictures.

Task

Food chains and food webs show the connections between producers and consumers. Using an electronic encyclopedia or other source, find, copy and paste pictures to create a complete food chain. Once you have created the food chain, write a well-written explanation of the relationship between the links in the chain. Remember that the Sun is the first link in each food chain.

SCORING GUIDE

The student:

4 – completes the diagram accurately, so that the connections between the links are extremely clear and organized
  – accesses the information with ease

3 – completes the diagram, with only minor errors, so that the connections between the links are clear and organized
  – accesses the information with general proficiency

2 – completes the diagram, with a few errors, so that the connections between the links are mostly clear
  – accesses the information with assistance

1 – completes the diagram, with major errors, so that the connections between the links are not clear
  – accesses the information only with a great deal of help

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 5

General Outcomes: F2, C1, C3, C5, C6

SPECIFIC OUTCOMES

The student will be able to:

F2	2.1	identify how technological developments influence his or her life
C1	2.1	access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations (URLs)
C3	2.2	recognize that information serves different purposes and that data from electronic sources may need to be verified to determine accuracy or relevance for the purpose used
C5	2.2	record group brainstorming, planning and sharing of ideas by using technology
C6	2.2	use data gathered from a variety of electronic sources to address identified problems
	2.6	solve issue-related problems, using such communication tools as a word processor or e-mail to involve others in the process
	2.7	generate alternative solutions to problems by using technology to facilitate the process

STUDENT TASK

Background

In Topic E: Wetland Ecosystems, students identify individual and group actions that can be taken to preserve and enhance wetland habitats. In this task, students participate in an inquiry in which they identify problems; seek help from others, by writing letters, using the Internet, sending a fax and using the telephone; and generate some solutions to the problems identified. The technology is used to generate information that may lead to a possible solution, as well as foster communication between the students and other people.

Task

A developer in your community has decided to build a new subdivision on the north side of the town's wetland area. This area is used by waterfowl, deer and various other plants and animals. What can a concerned citizen do to determine how a subdivision may affect the ecosystem?

In a group, brainstorm possible strategies that could be followed to address this investigation. Choose one of the strategies, write a plan and follow through with it.

Some possible ideas include using your word processor to compose a letter to town council, checking different Internet sites for relevant information or videotaping the wetland to show its value to a particular authority.

- Determine if the development enhances or threatens the environment.
- Suggest actions that should be taken.
- Report back to the class on your chosen strategy, the plan you followed and the end result.

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RELATED CURRICULUM OUTCOMES

Science, Grade 5
Skills, Bullets 4 and 5; Topic E, SLE 10

- work individually or cooperatively in planning and carrying out procedures
- identify sources of information and ideas and access information and ideas from those sources. Sources may include library, classroom, community and computer resources
- identify individual and group actions that can be taken to preserve and enhance wetland habitats

SCORING GUIDE

The student:

4 – gathers meaningful and specific information on the problem
– uses information that is verified by at least one other source and is relevant to the nature of the problem
– records the strategies identified from the brainstorming on an overhead projector or through the use of a presentation program tool and projector, in order to have a visual record for all the group to see

3 – gathers some relevant information on the problem
– uses information that is mostly relevant to the nature of the problem but that is not verified
– records the strategies identified from the brainstorming on paper, and copies and shares them later

2 – gathers some information on the problem
– uses information that is somewhat relevant to the nature of the problem and that is not verified
– records some of the strategies gathered from the brainstorming on paper but does not share them

1 – gathers little information on the problem
– uses information that is not very relevant to the nature of the problem and that is not verified
– does not record any of the strategies from the brainstorming

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 5

General Outcomes: P3, P5, P6, C7

SPECIFIC OUTCOMES

The student will be able to:

P3	2.1	create a multimedia presentation, incorporating features such as visual images (clip art, video clips), sounds (live recordings, sound clips) and animated images, appropriate to a variety of audiences and purposes
P5	2.1	create and navigate a multiple-link document
P6	2.1	select and use the technology appropriate to a given communication situation
C7	2.2	use selected presentation tools to demonstrate connections among various pieces of information

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 5
Topic B, Related Facts and Content, Bullet 1
- lifestyles of Native groups prior to settlement, such as Algonquin, Huron, Iroquois and Cree

STUDENT TASK

Background

In Topic B: Early Canada: Exploration and Settlement, students learn about the early Eastern Canadian aboriginal groups. In this task, students gather information on such topics as daily life, religion and transportation. This information is to be displayed as a multimedia presentation, using appropriate software.

Task

After reading about the early Eastern Canadian aboriginal groups, use a multimedia software program to create a presentation for the class. This presentation may include, but is not limited to, the following: religion, order, daily life, transportation, shelter. This presentation is to include visual images—clip art or video clips—sounds, animated images and well written information on each topic.

Be prepared to share this presentation with the class. Other students are to take notes on your presentation.

SCORING GUIDE

The student:

4 – creates a presentation, using graphics, sound and text, which is clear, thorough, accurate, visually appealing and convincing
– creates a presentation that contains many links
– has many jot notes from other presentations

3 – creates a presentation, using graphics, sound and text, that is clear, accurate and contains some visually attractive graphics or pictures
– creates a presentation that contains a few links
– has some jot notes from other presentations

2 – creates a presentation, using graphics, sound and text, that is accurate and mostly complete
– creates a presentation that contains at least one link
– has a few jot notes from other presentations

1 – does not create a presentation, or creates a presentation that contains no links
– does not have any jot notes from other presentations

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 5

General Outcomes: C5, C6

SPECIFIC OUTCOMES

The student will be able to:

C5	2.2	record group brainstorming, planning and sharing of ideas by using technology
C6	2.2	use data gathered from a variety of electronic sources to address identified problems
	2.6	solve issue-related problems using communication tools such as a word processor or e-mail to involve others in the process

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 5
Topic A, Communication Skills, Bullets 1 and 2

- summarize information from a variety of sources by writing two or more well-organized paragraphs, supporting main idea(s) with appropriate details
- collect and organize information on a clearly defined topic, using a simple outline, webbing, etc.

STUDENT TASK

Background

In Topic A: Canada: Its Geography and People, students explore the issue, How should Canadians be altering their environment? In this task, students use technology to solve issue-related problems. Students work with a partner or group to brainstorm ideas and compose two paragraphs on the changes in the environment and how Canadians are adapting to them. This collaborative project could involve other classes, towns/cities or provinces from across Canada. Possible adaptations that students could focus on include:

- conserving resources
- replanting trees
- preserving habitat
- recycling.

Task

You have been studying Canada: Its Geography and People. The issue is, How should Canadians be altering their environment? Brainstorm with your group possible answers to this question. Make a record of the ideas from your group, and share these in an efficient manner so that each group member can access the information and use it. Use a variety of electronic sources to research changes in our local environment and how we are adapting to them. Be sure to list the sources you use. Summarize information in two or more paragraphs.

SCORING GUIDE

The student:

4 – gathers in-depth information on issue-related problems
– accesses many electronic sources

3 – gathers information on issue-related problems
– accesses some electronic sources

2 – gathers partial information on issue-related problems
– accesses at least one electronic source

1 – gathers little information on issue-related problems
– accesses no electronic sources

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 6

General Outcomes: F4, P4

SPECIFIC OUTCOMES

The student will be able to:

F4	2.1	recognize that graphics, video and sound enhance communication
	2.3	discuss how technology can be used to create special effects and/or to manipulate intent through the use of images and sound
P4	2.2	vary font style and size, and placement of text and graphics, in order to create a certain visual effect

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 6
GO 4.2, Bullet 3; GO 4.4, Bullet 1 and 3

- write legibly and at a pace appropriate to context and purpose when composing and revising; select and use a variety of software design elements [such as spacing, graphics, titles and headings, variety of font sizes and styles] when appropriate
- share information on a topic with class members in a planned and focused session using a variety of strategies
- demonstrate critical listening and viewing behaviours [such as recognizing main ideas and details, identifying inference] and show respect for the presenter [such as giving non-verbal encouragement, responding to emotional aspects of the presentation...]

STUDENT TASK

Background

This activity can be used for any type of visit or advertising, such as author visits, fund-raisers, fun lunches or special presentations. This specific task requires the creation of a three-part brochure.

Task

An author is visiting your school and your class has been asked to create a brochure to advertise her/his presentation. Create the brochure on the computer, and use the editing features to make it visually appealing. You should scan a graphic that would be appropriate for the author, by using the book cover or a photograph of the person.

As you are creating this brochure, consider how the use of text and graphics provides a visual and mental picture for the reader or viewer:

- What kind of picture do you want the reader/viewer to have?
- How do visual images affect what you think about the product or service being advertised?

SCORING GUIDE

The student:

4 – creates an informative brochure with attention to detail
– makes elegant use of font style and size, text and graphics to create a pleasing visual effect

3 – creates an informative brochure
– makes very good use of font style and size, text and graphics to create a pleasing visual effect

2 – creates a brochure
– uses font style and size, text, and graphics to create a visual effect

1 – is unable to create a brochure
– is unable to use font style and size, text and graphics to create a visual effect

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ILLUSTRATIVE EXAMPLES

ENGLISH LANGUAGE ARTS, GRADE 6

General Outcomes: P1, C4, C6

SPECIFIC OUTCOMES

The student will be able to:

P1	2.2	edit and format text to clarify and enhance meaning, using such word processing features as the thesaurus, find/change, text alignment, font size and style
C4	2.1	design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan as necessary
C6	2.3	use graphic organizers, such as mind mapping/webbing, flow charting and outlining, to present connections among ideas and information in a problem-solving environment

RELATED CURRICULUM OUTCOMES

English Language Arts, Grade 6
GO 3.1, Bullet 4
- create and follow a plan to collect and record information within a pre-established time frame

English Language Arts, Grade 6
GO 3.2, Bullet 1
- recall, record, and organize personal and peer knowledge of a topic for inquiry or research

STUDENT TASK

Background

Students design and create a work plan to be used in the inquiry process during a research project. This plan is to include things like a timeline for drafts, resources to access and deadlines to meet. Students also need to plan the conceptual ideas for the project, using such graphic organizers as flow charting, webbing and outlining to connect information. This task could be applied to any current research project in which the student is engaged.

Task

Choose a graphic organizer to collect and plan the ideas for your current research project. Design and create a work plan to complete this project by the due date. Make revisions to your initial plan as you complete each step of the inquiry process. When your project is complete, reflect on how this planning process helped you complete the project. Write up a summary to include with your project.

SCORING GUIDE

The student:

4 – creates a specific and usable work plan
– uses a graphic organizer to facilitate multiple connections among ideas and information
– reflects to show a detailed analysis of how the planning process helped or hindered the project

3 – creates a detailed, usable work plan
– uses a graphic organizer to facilitate connections among ideas and information
– reflects to show a satisfactory analysis of how the planning helped or hindered the project

2 – creates a usable work plan
– uses a graphic organizer to connect ideas
– reflects to show how planning helped or hindered the project

1 – is unable to create a usable plan
– is unable to use a graphic organizer
– reflects in a way that shows no analysis of the plan

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 6

General Outcomes: P2, P4, P5, C1, C6

SPECIFIC OUTCOMES

The student will be able to:

P2	2.2	display data electronically through graphs and charts
P4	2.1	integrate a spreadsheet, or graphs generated by a spreadsheet, into a text document
	2.2	vary font style and size, and placement of text and graphics, in order to create a certain visual effect
P5	2.3	navigate the Internet with appropriate software
C1	2.2	organize information gathered from the Internet or an electronic source by selecting and recording the data in logical files or categories
C6	2.5	solve problems requiring the sorting, organizing, classifying and extending of data using tools such as calculators, spreadsheets, databases or hypertext technology

RELATED CURRICULUM OUTCOMES

Science, Grade 6
Topic C, SLE 9

- recognize that the other eight known planets, which revolve around the Sun, have characteristics and surface conditions that are different from Earth; and identify examples of those differences

STUDENT TASK

Background

In Topic C: Sky Science, students recognize that the other eight known planets revolve around the Sun and have characteristics and surface conditions that are different from Earth. In this task, students research, on the Internet or through an electronic encyclopedia, information about the characteristics of the eight other planets and compare them to Earth. Conclusions are drawn from the results.

Task

You know that it takes one day, or 24 hours, for Earth to make a full revolution around its axis. You also know that it takes 365 days, or one year, for Earth to make a full orbit around the Sun. Compared to Earth, are the other planets similar or different in these characteristics?

Using the Internet or electronic sources as your main resource, choose at least four of the following characteristics to create charts and/or graphs, in which you can make some comparisons:

- length of one "day"
- length of one "year"
- size of the planet
- distance from the sun
- average temperature
- number of moons
- other characteristics.

Once you have conducted your research in at least four of these areas, input the data into a spreadsheet and construct appropriate graphs/charts. Next, create a word processing document that incorporates the charts and/or graphs from this data, as well as a brief and concise explanation of the information.

Finally, for each of the charts and/or graphs make several conclusions about the characteristics. For example, the further from the Sun a planet is, the cooler the average temperature seems to be.

Remember all titles and headings should be in a distinctive style with varying sizes as compared to the rest of your text.

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SCORING GUIDE

The student:

4 – integrates the charts and/or graphs within the text document without difficulty
- draws many conclusions from the electronic data
- creates an excellent visual style by formatting the text
- creates many appropriate charts and/or graphs

3 – integrates the charts and/or graphs within the text document with little difficulty
- draws two or three conclusions from the electronic data
- creates a very good visual style by formatting the text
- creates two or three appropriate charts and/or graphs

2 – integrates a chart and/or graph within the text document with minimal difficulty
- draws at least one conclusion from the electronic data
- creates a satisfactory visual style by formatting the text
- creates at least one appropriate chart and/or graph

1 – does not integrate a chart or graph within the text document
- draws no conclusions from the electronic data
- does not format text
- does not create any appropriate charts or graphs

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 6

General Outcomes: C1, C4, C6, C7

SPECIFIC OUTCOMES

The student will be able to:

C1	2.1	access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations (URLs)
C4	2.1	design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan as necessary
C6	2.1	select and use technology to assist in problem solving
	2.4	solve problems using numerical operations and tools such as calculators and spreadsheets
	2.5	solve problems requiring the sorting, organizing, classifying and extending of data using tools such as calculators, spreadsheets, databases or hypertext technology
C7	2.1	use a variety of technologies to organize and synthesize researched information

RELATED CURRICULUM OUTCOMES

Science, Grade 6
Skills 6-1; Topic C, SLE 12

- design and carry out an investigation in which variables are identified and controlled, and which provides a fair test of the question being investigated
- understand that Earth, the Sun and the Moon are part of a solar system that occupies only a tiny part of the known universe

STUDENT TASK

Background

In Topic C: Sky Science, students understand that Earth, the Sun and the Moon are part of a solar system that occupies only a tiny part of the known universe. In this task, students explore distances in the solar system, as well as the known universe, and relate those distances to their own time references. To do so, they create formulas in a spreadsheet document in order to calculate distances and time.

Students may need instruction on the use of a spreadsheet, or teachers may wish to create a template.

Task

How long does it take to drive to your school from home? How long would it take to walk that distance? In 1969, the United States made the first successful lunar landing, which took approximately three days. Since the moon is 385 000 kilometres from Earth, it would mean the rocket was travelling at an average rate of 5 331 kilometres per hour.

If the Sun is 1.5 million kilometres away from Earth, how long would it take the rocket to get there? If the rocket travelled twice as fast, how long would it take to get to the Sun?

In order to solve these problems, you will be required to create a spreadsheet and formulas to calculate the various times. Use the spreadsheet to investigate the relationships between the distance, speed and time. Choose to send a rocket to Pluto rather than the Sun, use the two speeds outlined above, and compare the times of travel with those to the Sun.

Would you be able to travel to any other destinations in the universe within your lifetime? How?

You can find data for this task at the following URL: <http://www.uni-trier.de/infos/solar/homepage.html>.

Be sure to document the sources you use.

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SCORING GUIDE

The student:

4 – solves problems accurately, using a spreadsheet
  – organizes the data effectively and demonstrates multiple possibilities for the many relationships among the data
  – navigates easily to information sites on the Internet and identifies appropriate information needed to solve the problems

3 – solves problems, with minor errors, using a spreadsheet
  – organizes the data and demonstrates several possibilities for the many relationships among the data
  – navigates with a little assistance to information sites on the Internet and identifies some of the information needed to solve the problems

2 – begins to solve problems, but with major errors, using a spreadsheet
  – organizes the data and demonstrates a few possibilities for the many relationships among the data
  – navigates only with assistance to information sites on the Internet and requires assistance to identify the information needed to solve the problems

1 – has difficulty understanding the problem and using a spreadsheet
  – does not organize any data
  – requires extensive assistance to find sites on the Internet and can only identify the information that is needed with major prompts

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ILLUSTRATIVE EXAMPLES

SCIENCE, GRADE 6

General Outcomes: P2, P6, C4

SPECIFIC OUTCOMES

The student will be able to:

P2	2.1	enter and manipulate data by using such tools as a spreadsheet or database for a specific purpose
P6	2.1	select and use the technology appropriate to a given communication situation
C4	2.1	design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan as necessary

RELATED CURRICULUM OUTCOMES

Science, Grade 6
Topic E: SLEs 9 and 10

- identify human actions that enhance or threaten the existence of forests
- identify an issue regarding forest use, different perspectives on that issue, and actions that might be taken

STUDENT TASK

Background

In Topic E: Trees and Forests, students identify actions that can enhance or threaten ecosystems. In this task, students participate in an inquiry in which they identify actions that may lead to a specific issue, examine perspectives on the issue and consider further actions that may resolve the issue.

Task

Suppose that a developer has decided to build a new subdivision in a wooded area near where you live. What mammals, birds, and other animals and plants would you expect to find in this area? What can a concerned citizen do to see how development may affect the ecosystem?

In a group, brainstorm possible strategies to investigate the effects this action might have. Choose one of the strategies, write a plan and follow through with it.

Some possible ideas include using a word processing program to prepare a database on animals and plants found in the area, checking different Internet sites for relevant information, or videotaping the forest to show its value to a particular authority.

- Determine if the development enhances, threatens or would have minimal impact on the environment.
- Suggest actions that should be taken.
- Report back to the class on your chosen strategy, the plan you followed and the end result.

SCORING GUIDE

The student:

4 – designs, follows and revises, as appropriate, a comprehensive and realistic plan that accomplishes the task
– communicates the message clearly and effectively

3 – designs, follows and revises, as appropriate, a fairly thorough and reasonable plan that accomplishes much of the task
– communicates the message clearly

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2	–	designs and follows a plan that accomplishes some of the task
	–	communicates the message, but more information is required
1	–	is unable to design and follow a plan that accomplishes the task
	–	is unable to communicate the message in a manner that is clear and comprehensive

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ILLUSTRATIVE EXAMPLES

SOCIAL STUDIES, GRADE 6

General Outcomes: F2, F3, F4, P4, P6, C1, C3, C4, C6

SPECIFIC OUTCOMES

The student will be able to:

F2	2.1	identify how technological developments influence his or her life
	2.3	examine the environmental issues related to the use of technology
F3	2.4	document sources obtained electronically such as web site addresses
F4	2.2	describe how the use of various texts and graphics can alter perception
P4	2.2	vary font style and size, and placement of text and graphics, in order to create a certain visual effect
P6	2.1	select and use the technology appropriate to a given communication situation
C1	2.1	access and retrieve appropriate information from the Internet by using a specific search path or from given uniform resource locations (URLs)
	2.2	organize information gathered from the Internet or an electronic source by selecting and recording the data in logical files or categories
C3	2.1	identify and distinguish points of view expressed in electronic sources on a particular topic
	2.2	recognize that information serves different purposes and that data from electronic sources may need to be verified to determine accuracy or relevance for the purpose used
C4	2.2	organize information, using such tools as a database, spreadsheet or electronic webbing

STUDENT TASK

Background

In this task, students study how the physical environment and the customs/traditions of a country affect the ways people meet their basic needs. Students need to use the Internet and/or electronic sources to complete a research project and to organize the data into a word processing document. Pictures and related information are to be included, as well as students' personal opinions.

Task

China is a country of contrast. Many traditions from the past are being challenged by the growth in the use of modern technology. Using the Internet and/or other electronic sources, find a series of pictures that illustrate how life in China has changed over the last 50 years. Specifically, examine how the economy has changed in areas such as agriculture and manufacturing. Copy and paste the images into a word processing document, and below each explain in a well-written paragraph how the picture shows the way the Chinese people meet their basic needs and how technology has influenced the Chinese environment.

Your concluding paragraph should summarize how technology and traditions are balanced in an ever-changing society.

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C6 2.2 use data gathered from a variety of electronic sources to address identified problems

RELATED CURRICULUM OUTCOMES

Social Studies, Grade 6
Topic C, Process Skills (Geo/Map), Bullet 6; Communication Skills, Bullet 4

- infer relationships from data shown on maps
- collect and organize information on a clearly defined topic, using a simple outline, webbing, etc.

Topic C, Process Skills, Bullet 1, 2, 3 and 5

- acquire information by reading, listening and viewing
- identify the point of view in oral, written or viewed presentations
- select pertinent information from a variety of sources; e.g., newspapers, magazines, pamphlets, news media, films
- use computer programs (where appropriate software and hardware are available) to write a paragraph/report, to simulate situations impractical to reproduce in the classroom

Topic C, Related Facts and Content, Bullets 4 and 6

- how communication and technology affected the way needs were met
- conflict can develop between technological developments and maintaining traditions

SCORING GUIDE

The student:

4 – selects and uses appropriate technology for this task
  – writes a response that effectively communicates information and knowledge about the topic
  – provides information that is well organized, appropriately classified and presented in a very clear format

3 – selects and uses generally appropriate technology for this task
  – writes a response that mostly communicates information and knowledge about the topic
  – provides information that is organized, classified and presented in a clear format

2 – selects and uses appropriate technology in a limited way for this task
  – writes a response that partially communicates information and knowledge about the topic
  – provides information that is somewhat organized and classified, and is presented in a readable format

1 – shows little evidence of ability to select and use appropriate technology
  – writes a response that does not communicate information and knowledge about the topic
  – provides information that is not well organized or classified, and is not presented in a readable format

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ILLUSTRATIVE EXAMPLES

CROSS-CURRICULAR, GRADE 6

General Outcomes: P2, P4

SPECIFIC OUTCOMES

The student will be able to:

P2	2.1	enter and manipulate data by using such tools as a spreadsheet or database for a specific purpose
P4	2.1	integrate a spreadsheet, or graphs generated by a spreadsheet, into a text document

RELATED CURRICULUM OUTCOMES

Mathematics, Grade 6
Data Analysis, SP 6.1 to 6.6

- display data by hand or computer in a variety of ways

Social Studies, Grade 6
Topic A, Local Government, Related Facts and Concepts, Bullets 12 and 15

- democracy allows and needs people to take part in government (voting, petitions, meetings, special interest [lobby] groups)
- lobby groups can exert power on elected officials and influence decisions; e.g., petition, write letters, attend meetings

STUDENT TASK

Background

Students collect and display data to help them better understand the world in which they live. The teacher may want to use an observational checklist to observe the students' proficiency with the spreadsheet and integration of the graph into the summary.

Task

Your job is to decide on an issue you would like to investigate. For example: Does the school ground need more trees? Does the school need more space for lunchroom students? What can be done about the school vandalism occurring at night? Decide on some questions related to your issues, and decide how you will collect the data. Conduct your data collection, and set up a spreadsheet to organize the information. Generate a bar, line or pie graph that clearly shows the relationships among the questions within your issue. Write up some statements about your graph, linking the data to the questions. Use a word processing document to write up a summary of the findings on your issue, and integrate the graph to support your summary. Present your data to the appropriate audience.

SCORING GUIDE

The student:

4 – communicates the issue and the findings effectively through a clear and complete presentation of all information
– integrates, proficiently, an appropriate graph into the summary document
– uses the spreadsheet proficiently to organize data

3 – communicates the issue and the findings through a presentation that conveys most of the information available
– integrates, proficiently, a graph into the summary document
– uses the spreadsheet proficiently to organize data

2 – communicates the issue and some of the findings through a presentation that is not all clear
– integrates a graph into the summary document
– uses the spreadsheet to organize data

1 – fails to communicate the issue and findings clearly and comprehensively
– does not integrate a graph into the summary document
– does not use a spreadsheet to generate a graph

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ENGLISH LANGUAGE ARTS	Program of Studies	September, 1998
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APPENDIX 1: CHECKLIST FOR SELECTED SPECIFIC OUTCOMES

DIVISION I

A. FILE MANAGEMENT PROCEDURES

Observation of Student		*The student can:*
Y	N	1. boot computer and/or log on to network (F6.1.1)
Y	N	2. access programs/move between programs (F6.1.1)
Y	N	3. create files (F6.1.1)
Y	N	4. save and retrieve files (F1.1.1, F6.1.1)
Y	N	5. edit files, cut and paste (P1.1.2)
Y	N	6. move between files (F6.1.1)
Y	N	7. delete files (F6.1.1)
Y	N	8. print files (F6.1.1)
Y	N	9. insert, eject disks (F6.1.1)
Y	N	10. describe particular technologies being used for specific purposes (F2.1.2)
Y	N	11. click on an icon to launch an application (F6.1.1)
Y	N	12. use pull-down menus (F6.1.1)

B. TEXT-DATA ENTRY PROCEDURES

Observation of Student		*The student:* **Demonstrates "touch keyboarding" (correct fingering and eye focus) with: (F6.1.2)**
Y	N	1. home row keys and space bar
Y	N	2. arrow keys
Y	N	3. delete, insertion, backspace
Y	N	4. shift keys, return/enter, tab

DIVISION II

A. BASIC PROCEDURES

Observation of Student		*The student can:*
Y	N	1. boot computer and/or log on and log off network (F6.2.1)
Y	N	2. create, use, save, copy, paste and delete files and directories or folders (F6.2.2)
Y	N	3. peripherals, including printers and scanners (F6.2.3)
Y	N	4. open a file and save as a different file type (P1.2.3)
Y	N	5. select and use the technology appropriate to a given communication situation (P6.2.1)
		6. edit and format text within a word processor (P1.2.2)
Y	N	- use of thesaurus
Y	N	- find/change function
Y	N	- text alignment
Y	N	- font size and style

B. TEXT-DATA ENTRY PROCEDURES

Observation of Student		*The student:* **Demonstrates "touch keyboarding" (correct fingering and eye focus) with: (F6.2.4)**
Y	N	1. alphabetic keys
Y	N	2. basic punctuation keys (.,;:,?)
Y	N	3. shift keys, return/enter, delete

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DIVISION I

C. COMPUTER WORKSTATION COMPONENTS

Observation of Student		*The student identifies and explains use of:*
		Hardware Architecture, Configurations, Peripherals (F1.1.2)
Y	N	1. input systems (e.g., keyboard, mouse)
Y	N	2. output devices (e.g., monitor, printer)
Y	N	3. storage mediums (floppy disk, hard drive, network, CD)

Observation of Student		**Work Station Routines**
Y	N	1. maintains good body position (F5.1.1)
Y	N	2. observes ethical and legal measures in handling software and hardware (copyright, privacy, confidentiality) (F3.1.4)
Y	N	3. demonstrates appropriate care of technology equipment (F3.1.3)

DIVISION II

C. COMPUTER WORKSTATION COMPONENTS

Observation of Student		*The student identifies and explains use of:*
		Hardware Architecture, Configurations, Peripherals (F1.2.1)
Y	N	1. input systems (e.g., keyboard, mouse, voice)
Y	N	2. operating platforms/systems (e.g., MAC, DOS, WINDOWS)
Y	N	3. output devices (e.g., monitor, printer)
Y	N	4. communication devices (e.g., modem)
Y	N	5. storage mediums (floppy disk, hard drive, network, CD)

Observation of Student		**Work Station Routines**
Y	N	1. appropriately adjusts monitor, keyboard, desk, chair and other equipment to ensure workstation is ergonomically appropriate (comfortable, healthy, safe and efficient) (F5.2.1)
Y	N	2. observes ethical, legal and security measures in handling software and hardware (copyright, privacy, confidentiality) (F3.2.5, F3.2.6, F3.2.7)
Y	N	4. complies with school acceptable use policy (F3.2.1)

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